

Resource Management Projects for 2010 Homestead National Monument of America

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Soon the birds will be waking us up with their happy songs, leaves will be appearing on trees, and flowers will reappear. With spring just around the corner it means that we are kicking it into full gear preparing to accomplish all of our 2010 goals. As the Resource Management Specialist for the monument it is my duty to ensure that the National Park Service manages Homestead National Monument of America in such a way that it will “conserve the scenery and the natural and historic objects and the wild life therein [within the national parks] and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations” (National Park Service Organic Act, 1916).

A general premise of resource management is that you cannot manage or protect that which you cannot or have not identified. Because of this philosophy many of the projects at Homestead revolve around getting a better idea of what species inhabit the monument and monitoring how those populations are changing. Another question is do those species belong at Homestead National Monument of America, followed by how are NPS actions impacting those species?

With that in mind the projects for 2010 are:

Deer Survey-The last Saturday of the month (expect for May and December) Homestead National Monument of America will be holding a deer survey. With this project we are looking at the density of the deer population on the monument. When the first Euro-Americans arrived it is estimated there were between 10 and 20 deer per square mile that in eastern Nebraska. During the February, 2010 deer survey 74 deer were observed within the original 160 acre Daniel Freeman Homestead claim, for a total of 296 per square mile.

Breeding Bird Survey- The breeding bird monitoring project will consist of visiting 48 points within the park and counting all the birds heard and seen for five minutes. It is estimated that it will take approximately 4-5 mornings to complete the yearly monitoring. The sampling will begin no sooner than the first full week of May and extend no later than the second full week of June.

During sampling conducted in 2009 within the tallgrass prairie, 48 species were observed, Dickcissels were observed the most (748), followed by the Red-winged Blackbird (482), and the Common Yellowthroat (286).

Water Quality Monitoring-Since 2002 Homestead has been working with Beatrice Middle School to monitor the water quality of Cub Creek. The water is tested twice a month through the school year. Parameters measured include temperature, conductivity, pH, alkalinity, phosphates, nitrates, sulfates, flow, and turbidity. Volunteers keep this project going, encouraging students to explore Cub Creek while ensuring that the data is properly collected.

While the data received from this project is crucial to the understanding of Cub Creek, the real reward is connecting the student with the water and seeing the light bulb come on as to how they as individuals impact the quality of our surface water.

Exotic plant removal-This year we will be removing exotic trees from the woodland, white mulberries and Osage orange trees. Exotic species impact the environment by reducing the species diversity of the area. Exotic and invasive species control is an ongoing project at Homestead. Other exotic plant species of concern at Homestead are smooth brome grass and reed canary grass. Both of these species can crowd out native species reducing the biodiversity of areas making them almost unusable for wildlife. Through fire, manual removal and chemical application staff and volunteers are working to remove and reduce the impacts that exotic species have on the monument and promote native biodiversity.

Repeat photography of the prairie woodland and creek- Since the late 1970's three times a year the prairie and woodland have been photographed from specified points looking specified directions. The photos do a great job of showing the changes in the vegetation and developments around the monument.

The above are just a sampling of the many projects that the resource management staff and volunteers will be completing in 2010. If you have any questions about any of the projects or would like to help with any of the projects please contact me at 402-223-3514 or jesse_bolli@nps.gov.

Enjoy the spring!!! Come visit us at Homestead National Monument of America.

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